member of each pair of probes is also complementary to a portion of said amplification sequence[.], said amplification sequence acting as a template sequence;

(b) allowing said hybridizing members of said amplification probes to hybridize to [a different portion of] said [amplification] template sequence, with said amplification probes binding to said [amplification] template sequence in a contiguous manner;

a1

(c) [causing] ligating said hybridized amplification probes [to join together] to form an amplification product;

(d) effecting separation of said amplification product from said [target] template sequence; and,

(e) repeating steps (a) through (d), wherein said amplification product also acts as a template sequence in subsequent cycles of steps (a) through (d).

Amend claim 6 to read as follows:

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6. A method for detecting an [nucleic acid sequence] amplification product, having three or more ligated [nucleic acid] amplification probe segments, comprising:

a2

(a) contacting said [nucleic acid sequence] amplification product with at least two detection probes, wherein at least one of said detection probes is labeled, and wherein each of said detection probes is complementary to a portion of a different combination of each of two of said ligated [nucleic acid] amplification probe segments which are adjacently situated in said [nucleic acid sequence] amplification product.

(b) allowing each of said detection probes to hybridize to two adjacently situated amplification probe segments of said

[nucleic acid sequence] amplification product, with said detection probes binding to said [nucleic acid sequence] amplification product [sufficiently adjacent to each other to enable an interaction to occur between said hybridized detection probes] in a contiguous manner to form a detection product;

(c) detecting the presence of said [hybridized] detection [probes] product through the presence of said label.

Amend claim 7 to read as follows:

7. The method of claim 6 [wherein at least one of] further comprising separating said unhybridized labeled detection probes [is labeled] from said hybridized detection product.

Amend claim 9 to read as follows:

9. The method of claim 6 [further comprising:] wherein [(c) causing] said hybridized detection probes [to join together] are ligated to form a ligated detection product.

Amend claim 14 to read as follows:

14. A method for detecting a target nucleic acid sequence which may be present in a test sample comprising:

New matter

(a) contacting said test sample with an excess of a plurality of denatured pairs of nucleic acid amplification probes sufficient to ~~drive~~ the reaction forward, wherein the member probes of each of said pairs of amplification probes are complementary to each other and at least one same hybridizing member of each pair of probes is also complementary to an amplification sequence of said target nucleic acid sequence, said amplification sequence acting as a template sequence;

(b) allowing said hybridizing members of said amplification probes to hybridize to [a different portion of] said [amplification] template sequence, with said amplification probes binding to said amplification sequence in a contiguous manner;

(c) [causing] ligating said hybridized amplification probes [to join together] to form an amplification product, wherein each of said ligated amplification probes forms an amplification probe segment of said amplification product;

(d) effecting separation of said amplification product from said [amplification] template sequence;

(e) repeating steps (a) through (d), wherein said amplification product also acts as a template sequence in subsequent cycles of steps (a) through (d).

[(e)] (f) contacting said amplification product with at least two detection probes, wherein at least one of said detection probes is labeled, and wherein each of said detection probes is complementary to a portion of each of two of a different combination of said amplification probe segments which are adjacently situated in said amplification product;

[(f)] (g) allowing each of said detection probes to hybridize to two adjacently situated amplification probe segments of said amplification product, with said detection probes binding to said amplification product [sufficiently adjacent to each other to enable an interaction to occur between said hybridized detection probes] in a contiguous manner to form a detection product;

[(g)] (h) detecting the presence of said hybridized detection [probes] product through the presence of said label.

Amend claim 19 to read as follows:

19. A reagent for use in the amplification of an amplification sequence comprising an excess of a plurality of pairs of nucleic acid amplification probes sufficient to drive the reaction forward, wherein the member probes of each pair of amplification probes are complementary to each other and at least one same hybridizing member of each pair of amplification probes is also complementary to a given portion of said amplification sequence, with the nucleic acid sequences of each pair of amplification probes selected to be complementary to [a different portion] said amplification sequence, said amplification sequence acting as a template sequence, the amplification probes being capable of hybridizing to the [amplification] template sequence in a contiguous manner sufficiently adjacent to each other to enable the probes to be [joined together] ligated to form an amplification product.

Amend claim 20 to read as follows:

20. A reagent for use in the detection of an [nucleic acid sequence] amplification product, wherein said amplification product [having] has three or more ligated [nucleic acid] amplification probe segments, said reagent comprising two nucleic acid detection probes, wherein each of said detection probes is complementary to a portion of each of two of a different combination of said ligated [nucleic acid] amplification probe segments which are adjacently situated in said [nucleic acid sequence] amplification product, with at least one of said detection probes being provided with a label, the detection probes being capable of hybridizing to said [nucleic acid sequence] amplification product [sufficiently adjacent to each other to enable an interaction to occur between said detection probes] in a contiguous manner to form a detection product.

Amend claim 21 to read as follows:

21. A kit for use in the detection of a target nucleic acid sequence which may be present in a test sample comprising:

(a) an excess of a plurality of pairs of amplification probes sufficient to drive the reaction forward, wherein the member probes of each pair of amplification probes are complementary to each other and at least one same hybridizing member of each pair of amplification probes is also complementary to a portion of an amplification sequence of said target nucleic acid sequence, said amplification sequence acting as a template sequence, [with the nucleic acid sequences of each pair of amplification probes selected to be complementary to a different portion of said amplification sequence], and said amplification probes being capable of hybridizing to said [amplification] template sequence in a contiguous manner sufficiently adjacent to each other to enable the probes to be [joined together] ligated to form an amplification product, such that said amplification product is made up of ligated amplification probe segments; and,

(b) two detection probes, wherein at least one of said detection probes is labeled, and wherein each of said detection probes is complementary to a portion of each of two of a different combination of amplification probe segments of said amplification product which are adjacently situated in said amplification product, with at least one of said detection probes being provided with a label, said detection probes being capable of hybridizing to said amplification product [sufficiently adjacent to each other to enable an interaction to occur between said hybridized detection probes] in a contiguous manner to form a detection product;